

Notice of Allowability

Application No.

09/812,945

Examiner

Shengjun Wang

Applicant(s)

LAN-HARGEST ET AL.

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 22, 2006.
2. ☒ The allowed claim(s) is/are 1,41,44 and 76-85.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

SHENGJUN WANG
PRIMARY EXAMINER

DETAILED ACTION

Examiner's Amendments

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Harold H. Fox on January 25, 2007.

2. Amend the application as following:

In the claims:

Amend claim 1 as following;

1. A method of inhibiting histone deacetylation activity in cells comprising contacting the cells with an effective amount of a compound wherein the compound is 7-phenyl-2,4,6-heptatrienoylhydroxamic acid, 8-phenyl-3,5,7-octatrienoic acid, cinnamoylhydroxamic acid, methylcinnamoylhydroxamic acid, 5-phenyl-2,4-pentadienoylhydroxamic acid, N-methyl-5-phenyl-2,4-pentadienoylhydroxamic acid, 3-methyl-5-phenyl-2,4-pentadienoylhydroxamic acid, 4-methyl-5-phenyl-2,4-pentadienoyl hydroxamic acid, 5-phenyl-2-en-4-yn-pentanoylhydroxamic acid, or N-methyl-6-phenyl-3,5-hexadienoylhydroxamic acid, thereby treating one or more disorders mediated by histone deacetylase; wherein the disorder is cancer;

and determining whether the level of acetylated histones in the treated cells is higher than in untreated cells under the same conditions.

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Cancel claims 46, 67, 74-75.

Reasons for Allowance

3. Claims, as amended now, are limited to the elected invention: a method of inhibiting deacetylation activity in cells by using hydroxamic acid compounds herein, and thereby treating disorders mediated by histone deacetylase, wherein the disorder is cancer. The application is now in condition for allowance.

The Claims are allowable as the closest reference, Parsons (WO 98/55449) teaches hydroxamic acids derivatives, as histone deacetylase inhibitor, are useful against various cancer cells (the abstract, and pages 4-6). However, the hydroxamic compounds disclosed by Parsons require a bipolar structure, i.e., the compounds require polar moieties at both ends of the molecules. The hydroxamic compounds herein are distinct from those disclosed by Parsons in that they have a non-polar moiety, a unsubstituted phenyl group, at the other end of the molecule.

4. The examiner noted applicants' filing of application No. 11/268,546 on November 8, 2005. Claims 57-63 in '546 are particularly directed to treatment of prostate cancer with the same hydroxamic acid herein. Therefore, there is obvious double patenting issue between these two applications. Since '546 was filed late than this application, and there is no other issue for this application, this application is now passed to allowance (see MPEP 804 IB).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang whose telephone number is (571) 272-0632. The examiner can normally be reached on Monday to Friday from 7:00 am to 3:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shengjun Wang
Primary Examiner
Art Unit 1617

SHENGJUN WANG
PRIMARY EXAMINER
